UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

SEP 1 1 2015

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
Article Number: 7015 1520 0003 0791 0771

Jose Uriol, General Manager and Vice President
Essroc San Juan Cement
P.O. Box 366698
San Juan, PR 00936-6698

Re: Essroc San Juan Cement
Compliance Evaluation Inspection, May 29, 2015 and
Consent Decree (3:09-cv-01578)
Individual Permit No. PR0001163 and MSGP 2008 Tracking No. PRR05BJ45

Dear Mr. Uriol:

This letter is in reference to the National Pollutant Discharge Elimination System ("NPDES") Compliance Evaluation Inspection ("CEI") conducted by the United States Environmental Protection Agency's ("EPA") Region 2, Water Compliance Branch on May 29, 2015 and a review of Essroc's Quarterly Reports/Submittals pursuant to Consent Decree (3:09-cv-01578) ("CD") entered on May 4, 2010. This report indicates that certain non-compliance items or deficiencies which should be corrected to ensure compliance with your Individual NPDES Permit (PR0001163), the NPDES Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity ("MSGP 2008") and/or the CD. In addition, the EPA inspector identified other Areas of Concern which are items that should be addressed to improve the quality of the discharges and/or operation of the facility.

Within forty five (45) days of receipt of this letter, respond to the EPA in writing with the actions that the facility has taken or will take to address the non-compliance items and areas of concern identified in the report. Also, send a copy of your response to Wanda E. García Hernández, Director, Water Quality Area, EQB, Puerto Rico Environmental Quality Board, P.O. Box 11488, Santurce, Puerto Rico, 00910 and to Nancy Rodriguez Chief Multi-Media Permits and Compliance Branch, USEPA-CEPD USEPA Region 2, CEPD-MWPB, City View Plaza II – Suite 7000, #48 RD. 165 km 1.2, Guaynabo, PR 00968-8069.

For further information on EPA's Stormwater Program such as Best Management Practices see EPA's web site at < http://water.epa.gov/polwaste/npdes/stormwater/EPA-Multi-Sector-General-Permit-MSGP.cfm>. Also, in accordance with the National Environmental Policy Act (NEPA) Section 101, 42 U.S.C. §4331, we urge your facility to operate in a "sustainable manner,

calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony". Please visit the following web sites http://www.epa.gov/greenbuilding/; http://www.epa.gov/sustainability/, which provide information on Green Buildings and Sustainability.

If you have any questions please feel free to contact me at (212) 637-4268.

Sincerely yours,

Justine Modigliani, P.E, Chief
Compliance Section
Water Compliance Branch

Enclosure

cc: Wanda E. García Hernández, Director, Water Quality Area, PREQB
Nancy Rodriguez, Chief USEPA Multi Media Permits and Compliance Branch, CEPD
Jerry MacLaughlin, USDOJ, ENRD-EES

EPA

United States Environmental Protection Agency Washington, D.C. 20460
Water Compliance Inspection Report Form Approved.
OMB No. 2040-0057
Approval expires 8-31-98

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
N	PR0001163	150529			R
1 2	3 11	12 17		18	19 202

Remarks (21 – 66)

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI	QA	Reserved
1				73747580
67 69	70	71	72	

Section B: Facility Data

Name and Location of Facility Inspected *(for industrial users discharging to POTW, also include POTW name and NPDES permit number)*

Essroc San Juan, Inc, State Road 2, Km 26.7, Dorado Puerto Rico
Mailing Address, P.O. Box 366698. San Juan, PR 00939-6698

Entry Time/Date: May 29, 2015, 9:40 AM
Permit Effective Date: 6/1/2010 Permit Modification Effective
Exit Time/Date: 5:30 PM
Permit Expiration Date: 11/30/2012

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

Juan Colon, Environmental Compliance Manager
Angel Colon, Quarry Supervisor, 787 721-5878 ext. 280

Other Facility Data

MSGP 2008 - PRR05BJ45

Consent Decree - 3:09-cv-01578 entered 5/4/10

Name, Address of Responsible Official/Title/Phone and Fax Number(s)

Jose Uriol, General Mgr. Essroc San Juan Cement, P.O. Box 366698, San Juan PR 00936-6698

Contacted: [ ] Yes [ ] No

Section C: Areas Evaluated During Inspection *(Check only those areas evaluated)*

X	Permit	X	Flow Measurement		Operations & Maintenance CSO/SSO (Sewer Overflow)
X	Records/Reports	X	Self-Monitoring Program	X	Sludge Handling/Disposal Pollution Prevention
X	Facility Site Review	X	Compliance Schedules		Pretreatment Multimedia
X	Effluent/Receiving Water		Laboratory	X	Storm Water

Section D: Summary of Findings/Comments *(Attach additional sheets of narrative and checklists as necessary)*

SEV for TSS violations
A0012 — Effluent Violations - Numeric effluent violation

Directions to Facility From PR-22 to PR-2, count 5 lights, turn left at the fifth light on the right Correa Tire than turn left.

See enclosed report for non compliance items and areas of concern

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers Date
Murray Lantner, P.E. Environmental Engineer	EPA/WCB/(212) 637-3976/ FAX: 637-3953 9/1/15
Signature of Management Q A Reviewer Justine Modigliani, P.E. Chief, Compliance Section 9/11/15	Agency/Office/Phone and Fax Numbers Date WCB, Compliance Section (212) 637-4268 (ph) (212) 637-3953 (Fax)

INSTRUCTIONS

Section A: National Data System Coding *(i.e., PCS)*

Column 1: Transaction Code: Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

Columns 3-11: NPDES Permit No. Enter the facility's NPDES permit number - third character in permit number indicates permit type for U=unpermitted, G=general permit, etc. *(Use the Remarks columns to record the State permit number, if necessary.)*

Columns 12-17: Inspection Date. Insert the date entry was made into the facility. Use the year/month/day format (e.g., 04/10/01 = October 01, 2004).

Column 18: Inspection Type*. Use one of the codes listed below to describe the type of inspection:

A	Performance Audit	U	IU Inspection with Pretreatment Audit	!	Pretreatment Compliance (Oversight)
B	Compliance Biomonitoring	X	Toxics Inspection	@	Follow-up (enforcement)
C	Compliance Evaluation (non-sampling)	Z	Sludge - Biosolids	{	Storm Water-Construction-Sampling
D	Diagnostic	#	Combined Sewer Overflow-Sampling	}	Storm Water-Construction-Non-Sampling
F	Pretreatment (Follow-up)	$	Combined Sewer Overflow-Non-Sampling		Storm Water-Non-Construction-Sampling
G	Pretreatment (Audit)	+	Sanitary Sewer Overflow-Sampling	~	Storm Water-Non-Construction-Non-Sampling
I	Industrial User (IU) Inspection	&	Sanitary Sewer Overflow-Non-Sampling	<	Storm Water-MS4-Sampling
J	Complaints	\	CAFO-Sampling	-	Storm Water-MS4-Non-Sampling
M	Multimedia	=	CAFO-Non-Sampling	>	Storm Water-MS4-Audit
N	Spill	2	IU Sampling Inspection		
O	Compliance Evaluation (Oversight)	3	IU Non-Sampling Inspection		
P	Pretreatment Compliance Inspection	4	IU Toxics Inspection		
R	Reconnaissance	5	IU Sampling Inspection with Pretreatment		
S	Compliance Sampling	6	IU Non-Sampling Inspection with Pretreatment		
		7	IU Toxics with Pretreatment		

Column 19: Inspector Code. Use one of the codes listed below to describe the *lead agency* in the inspection.

A — State (Contractor)
B — EPA (Contractor)
E — Corps of Engineers
J — Joint EPA/State Inspectors—EPA Lead
L — Local Health Department (State)
N — NEIC Inspectors
O — Other Inspectors, Federal/EPA (Specify in Remarks columns)
P — Other Inspectors, State (Specify in Remarks columns)
R — EPA Regional Inspector
S — State Inspector
T — Joint State/EPA Inspectors—State lead

Column 20: Facility Type. Use one of the codes below to describe the facility.

1 — Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
2 — Industrial. Other than municipal, agricultural, and Federal facilities.
3 — Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
4 — Federal. Facilities identified as Federal by the EPA Regional Office
5 — Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389.

Columns 21-66: Remarks. These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days. Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing, and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating. Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection. Enter Q if the inspection was conducted as followup on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, other updates to the record, SIC/NAICS Codes, Latitude/Longitude).

Section C: Areas Evaluated During Inspection

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2, DECA-WCB-CS
20th Floor, 290 Broadway, NY, NY 10007

Compliance Evaluation Inspection:	Essroc San Juan Cement
NPDES No.:	Individual Permit – PR0001163 MSGP 2008 - PRR05BJ45
	3:09-cv-01578
Consent Decree Site Visit Date:	May 29, 2015
Inspectors:	Murray Lantner, P.E, Environmental Engineer, USEPA Region 2, Water Compliance Branch Region 2 (212)637-3976 Alex O. Rivera, Environmental Engineer, USEPA Reg. 2, Caribbean Environmental Protection Division (787) 977-5845
On-Site Representatives :	Juan Colón, Environmental Manager (787) 883-5500 Angel Colón, Quarry Supervisor
SIC Code:	Quarry Operation 1422 Cement Manufacturing 3241

I. Introduction

Murray Lantner, P.E. and Alex O. Rivera, Environmental Engineers and representatives of the United States Environmental Protection Agency ("EPA") Region 2 conducted a Compliance Evaluation Inspection ("CEI") on May 29, 2015 at the Essroc San Juan Facility in Dorado, Puerto Rico. The purpose of the CEI was to determine the compliance status of the facility with its individual National Pollutant Discharge Elimination System (NPDES) Permit PR0001163 ("Individual Permit"), its EPA NPDES Multi-Sector General Permit For Stormwater Discharges Associated with Industrial Activity ("MSGP 2008") (Permit Tracking No. PRR05BJ45) and the Judicial Consent Decree 3:09-cv-01578 ("CD") which was lodged with the Federal Court on March 5, 2010 and entered on May 4, 2010.

The cement manufacturing operations at the facility was said to operate 1 month on and 1 month on. The quarry area also has periodic shutdowns. The cement kiln was not operating during this inspection. During the 2012 EPA CEI, the facility was said to have approximately 80 employees and produce about 600 tons per day of cement when the cement kiln is operating. During previous inspections, Essroc said that approximately 50

employees when the cement plant is not running. Water for the facility is obtained from two groundwater wells. During this 2015 inspection, Essroc was drawing down Pond No. 1 in anticipation of a rain event which did come in the afternoon of May 29, 2015. Below is a summary of non compliance items and areas of concern associated with the Individual Permit, MSGP 2008 as well as the 2010 Consent Decree ("CD") identified through the on-site inspection and review of Essroc's records. It also should be noted that Essroc had made some improvements at the facility since the EPA inspection of the facility in October 2010, such as its monitoring and recordkeeping and some of its Best Management Practices.

The EPA Inspector Murray Lantner took all the May 29, 2015 Inspection photographs using an EPA owned digital camera Nikon Coolpix P510. Photos DSCN2711 thru DSCN2785 were taken and included as Attachment I of this Report, included the photo-documentation of this site visit, which provide for additional descriptions, findings, comments, and/or observations.

A. NON-COMPLIANCE ITEMS

1. As shown in Table 1 below, there have been effluent violations for the period June 2013 to June 2015 in violation of its Individual permit PR0001163.

Table 1: Essroc Table of Effluent Violations at Outfall 001 (PR0001163) June 2013 to June 2015

Date	Parameter	Units	Days of Violation	Permitted Level	Reported Level	Influent L2 (Essroc entry point into the pond) No./100mL	Influent L2 Sample Date
Jun-15	Copper	µg/L	1	12	30		
Jun-15	Total Coliform	No./100mL	1	10000	>16000	20, 5000	6/22/15, 6/29/15
Jun-15	Fecal Coliform	No./100mL	1	200	5000	500	6/22/2015
Jun-15	Fecal Coliform	%	1	20	50	9000	6/29/2015
Jun-15	TSS	mg/L	1	50	134.7		
Jun-15	Color	color units	1	15	30		
May-15	Total Coliform	No./100mL	1	10000	>16000	19,863	**5/30/2015**
May-15	Fecal Coliform	No./100mL	1	200	4611	2,481	**5/30/2015**
May-15	Fecal Coliform	%	1	20	100		
May-15	Color	color units	1	15	30		
Apr-15	Total Coliform	No./100mL	1	10000	>16000	>16000	Apr-15
Apr-15	Fecal Coliform	No./100mL	2	200	5000	9000	Apr-15
Apr-15	Fecal Coliform	%	1	20	50	9000	
Apr-15	Copper	µg/L	1	12	20		
Apr-15	TSS	mg/L	2	50	116		
Apr-15	Color	color units	2	15	30		
Mar-15	surfactants	µg/L	1	100	109		
Mar-15	Color	color units	1	15	20		

Table 1: Essroc Table of Effluent Violations at Outfall 001 (PR0001163) June 2013 to June 2015							
Date	**Parameter**	**Units**	**Days of Violation**	**Permitted Level**	**Reported Level**	**Influent L2 (Essroc entry point into the pond) No./100mL**	**Influent L2 Sample Date**
Mar-15	Total Coliform	No./100mL	1	10000	14200		
Mar-15	Fecal Coliform	No./100mL	3	200	2400	800	3/3/2015
Mar-15	surfactants	µg/L	1	100	**109**		
Mar-15	Color	color units	1	15	**20**		
Feb-15	Fecal Coliform	%	1	20	100		
Feb-15	Color	color units	2	15	30		
Feb-15	Total Coliform	No./100mL	1	10000	16000	5,000	2/2/2015
Feb-15	Fecal Coliform	No./100mL	3	200	5000	700	2/2/2015
1/23/15	TSS	mg/L	1	50	116		
1/23/15	Color	color units	1	15	40		
1/23/15	Fecal Coliform	No./100mL	1	200	1300	430	
Dec-14	Fecal Coliform	No./100mL	1	200	220	20	12/2/2014
Dec-14	TSS	mg/L	2	50	82		
Nov-14	pH	SU	2	9	9.88		
Nov-14	surfactants	µg/l	1	100	167		
Nov-14	Fecal Coliform	No./100mL	1	200	300	20	11/3/2014
Oct-14	Color	color units	2	15	30		
Oct-14	TSS	mg/L	2	50	301		
Oct-14	Fecal Coliform	No./100mL	1	200	2700	520	10/13/2014
Oct-14	Total Coliform	No/100mL	2	10000	>16000		
Sep-14	Color	color units	2	15	30		
Sep-14	Fecal Coliform	%	1	20	100		
Sep-14	Total Coliform	No./100mL	1	10000	12700	710	9/8/2014
Sep-14	Fecal Coliform	No./100mL	3	200	1900	300	9/8/2014
Aug-14	BOD	mg/L	1	5	9		
Aug-14	Fecal Coliform	%	1	20	66	1446	8/12/2014
Aug-14	Fecal Coliform	No./100mL	1	200	3100	>14260	8/20/2014
Aug-14	Total Coliform	No./100mL	1	10000	>16,000	288, 4036	8/12 and 8/20, 2014
Jun-14	Total Coliform	No./100mL	1	10000	>16,000		
Jun-14	Fecal Coliform	No./100mL	1	200	220	340	
Jun-14	BOD	mg/l	1	5	10.9	5000	
May-14	BOD	mg/L	5	9	DMR	DMR	
May-14	Fecal Coliform	No. /100mL	1	200	220	DMR	
April 2014 Need DMR							
Feb-14	Sulfates	mg/L	1	250	394		
Feb-14	Surfactants	µg/L	1	100	278		
Jan-14	Surfactants	µg/L	1	100	181		
Dec-13	Color	color units	3	15	30		

Table 1: Essroc Table of Effluent Violations at Outfall 001 (PR0001163) June 2013 to June 2015							
Date	**Parameter**	**Units**	**Days of Violation**	**Permitted Level**	**Reported Level**	**Influent L2 (Essroc entry point into the pond) No./100mL**	**Influent L2 Sample Date**
Nov-13	Color	color units	2	15	30		
Nov-13	Sulfates	mg/L	1	250	305		
Nov-13	Surfactants	µg/L	3	100	255		
Oct-13	Sulfates	mg/L	2	250	642		
Oct-13	Surfactants	µg/L	2	100	165		
Need September 2013 DMR							
Aug-13	Sulfates	mg/L	2	250	422		

2. As described in Paragraph 13.c and d of the Consent Decree, violations of fecal or total coliform limitations trigger the requirement to submit a Plan of Action. The Plan of Action requires Essroc to achieve compliance with these parameters 30 days after the due date for the Discharge Monitoring Report that showed the violations (provided the violations occurred November 2010 or thereafter). Essroc's Quarterly Report dated July 30, 2015 indicated that a Plan of Action for the coliform issue would be submitted in the third calendar quarter of 2015. Under the Consent Decree a Plan of Action should have already have been submitted.

   Note, that based on monitoring conducted by Essroc at monitoring point L2[1], there are levels of coliform that exceed the permit limits flowing from the gabion channel. Such exceedances occurred without the influence of the unsewered community (Guarisco Community) that flows into Pond No. 2 from a different influent pipe. See Table 1 above for some monitoring data for monitoring point L2.

3. Essroc's rain gauge was said not to be working and instead were using the National Oceanic and Atmospheric Administration (NOAA) website [2] to obtain precipitation data for the plant. As required by paragraph 14.a of the Consent Decree, Essroc is required to conduct precipitation monitoring on site and is therefore not complying with its obligations under the CD. Also, EPA was on-site on May 29. 2015 when there was an afternoon rain event. Essroc's precipitation log included in its Quarterly Report dated July 30, 2015 indicates that there was 0" of rain fall on May 29 and 1.63"on May 30, 2015. Please explain this discrepancy.

4. Paragraph 15.a of the CD requires a Plan of Action to be submitted if there are 3 violations within 3 months for an Enhanced Monitoring Parameter. The Permit Limit for Total Suspended Solids ("TSS") at Outfall 001 is 50 mg/L. Based on the DMRs and/or sampling data contained in the quarterly reports, there were TSS

[1] L2 is the influent to Pond No. 2 from the gabion channel that flows from Pond No. 1 to Pond No. 2. (Outfall 001 is the discharge from Pond No. 2)

[2] NOAA's National Weather Service Forecast Office – Climatological Data forToa Baja/Levittown, Puerto Rico - http://w2.weather.gov/climate/xmacis.php?wfo=sju

violations as shown in the table below. Based on paragraph 15.b of the CD a Plan of Action to address the 3 TSS violations in April and June 2015 is due on September 27, 2015. However, based upon 3 TSS exceedances in October and December 2014 as well as 1 TSS violation in January 2015 a Plan of Action for TSS, under paragraph 15 of the CD, should have been submitted on March 29, 2015. During the May 29, 2015 afternoon rainfall, there were turbid flows in stormwater channels, such as the channel near the packing house. See paragraph B.1 in the Areas of Concern for more details.

Table 2: Essroc, Outfall 001 (PR0001163) TSS violations at Outfall 001 from October 2014 to June 2015

Date	Parameter	Units	Days of Violation	Permitted Level	Reported Level
6/22/2015	TSS	mg/L	1	50	134.7
4/13/2015	TSS	mg/L	1	50	75
4/7/2015	TSS	mg/L	1	50	116
1/23/2015	TSS	mg/L	1	50	116
12/15/2014	TSS	mg/L	1	50	82
10/28/2014	TSS	mg/L	1	50	301
10/13/2014	TSS	mg/L	1	50	68.5

B. AREAS OF CONCERN

1. Review of Essroc's 2013 Stormwater Best Management Practices ("BMP") Plan indicates that:

   a. Essroc personnel no longer working with Essroc was still included in the plant contacts list on Page 5 of the BMP Plan. Therefore, Essroc needs to update the BMP Plan contacts list.

   b. Section III.G of the BMP Plan states that "an overall site inspection will be performed to document the conditions of the site, identify potential incidents in equipment and plant areas, and revise control measures in place. The areas that and/or equipment to be inspected include the equipment listed in the site plan and all areas in which industrial activities are exposed to storm water. The frequency of inspection will be once a month" and there is said to be a checklist for facility inspection in Appendix III of the BMP Plan.

   During the inspection, EPA identified stormwater channels and catch basins with a high deposition of solids:

   i. near the truck parking area as shown in photos 727 to 729;
   ii. partially clogged catch basin (photo 744); and
   iii. stormwater channel near packing house (photos 753 and 754) and trench drain (photo 755)

Section III.1.6 of the BMP Plan – Material Storage Areas (Raw Material, Coal, Iron Ore, and Clinker Storage) – states that, "the surrounding areas of storage buildings shall be maintained clean and free of debris or any other materials. Earth berms or swales surround the storage areas to direct runoff to the stormwater control systems, such as the jersey barriers and pond #1. Inspections in these areas shall be conducted to ensure that areas are in order and the runoff controls are working adequately. A periodic inspection, cleaning and maintenance of the storm water system will be performed as necessary, to maintain the system in good working order and operate as efficiently as possible." As shown in the inspection photos, additional maintenance of the stormwater channels is needed to remove sediments from the channels. This should help reduce TSS concentrations in the discharge.

i. also please provide the Facility Inspection Checklist in Appendix III of the BMP Plan. Also please provide all BMP Plan appendices to EPA;
ii. Mr. Colón of Essroc explained that they planned on cleaning catch basins and stormwater channels in July 2015. Please provide the status of this cleaning.

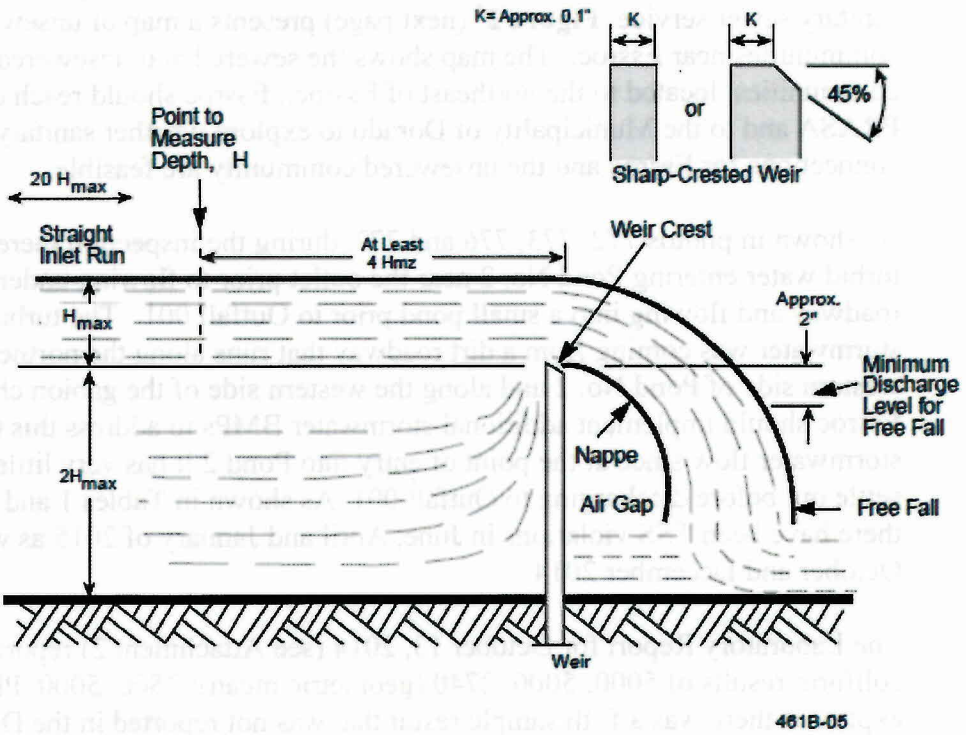
2. As shown in photos 2711 to 2714, there are potential water line leaks in the area shown in the photos, as well as behind the office building shown in photo 2751. Please identify if this is a water line leak and confirm that this water is permitted to discharge to Outfall 001 (PR00001163).

3. As shown in photo 2717, there is a high level of wastewater in this sanitary wastewater tank. This wastewater was thought to overflow into the adjacent tank shown in photo 2716. If the two tanks are not connected, please ensure that the wastewater tank shown in photo 2717 is emptied and monitored to ensure that it does not overflow.

4. The ultrasonic head sensor on the weir at Outfall 001 is located about 18 to 21" from the weir plate. Based on Appendix O of the 2004 NPDES Compliance Inspection Manual, the head sensor should be four (4) times the maximum head length (Hmax, but mistakenly written as Hmz) upstream of the weir. However, since Essroc does not have a limit on flow or mass loading limitations in its Permit, no action is necessary at this time. **Figure 1** shows the Profile and Nomenclature of Sharp-Crested Weirs.[3]

[3] Source: EPA NPDES Compliance Inspection Manual – Appendix O – Supplemental Flow Measurement Information (http://www2.epa.gov/sites/production/files/2013-09/documents/npdesinspect_0.pdf)

Figure 1 – Sharp Crested Weir Parameters



5. As shown in photographs 721 and 722, the cover on the ultrasonic sensor was missing and was covered with duct tape. The unit was working, but a new cover was said to be on order. Please provide to the EPA the status of the replacement of the ultrasonic sensor cover.

6. As shown in Photos 731 to 737, there is a channel that conveys wastewater from a residential area (Guarisco Community) to Essroc's Pond No. 2 which is tributary to Outfall 001. Foamy wastewater was seen discharging into the channel from a "straight pipe" discharge from a residence, other "straight pipes" from residences to this channel were seen. An ammonia field strip (an unapproved test method) of the water in the channel showed ammonia concentrations between 3 mg/L and 6 mg/L, which is an indicator of sanitary wastewater. The water in the channel was not seen flowing all the way into Essroc's pond No. 2. An Essroc representative explained that water use and therefore flows in this channel was less than normal due to the severe drought in PR. Essroc was contemplating rerouting the channel from the residential area around its Pond No. 2/Outfall 001 and conveying it to its discharge channel downstream of its Outfall 001. As this rerouting would not be beneficial to water quality in the receiving waters.

   Essroc should also consider other alternatives such as potentially obtaining

sanitary sewer service for the Essroc Plant along with the adjacent unsewered community. For example, there is another community (Los Montes Residential Development) located within 1,000 feet of Guarisco Communitythat has sanitary sewer service. **Figure 2**[4] (next page) presents a map of unsewered communities near Essroc. The map shows the sewered and unsewered communities located to the northeast of Essroc.. Essroc should reach out to PRASA and to the Municipality of Dorado to explore whether sanitary connections for Essroc and the unsewered community are feasible.

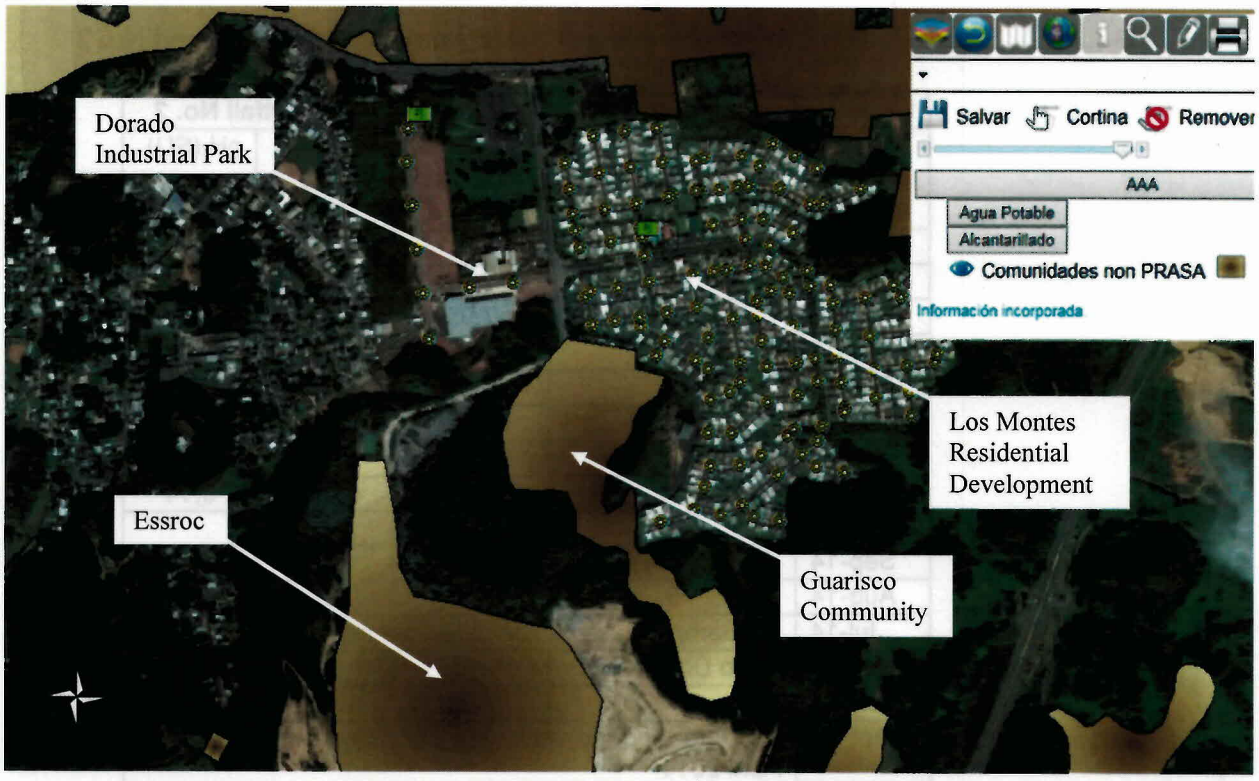
7. As shown in photos 772, 773, 776 and 777, during the inspection there was turbid water entering Pond No. 2 near the outlet prior to flowing under a roadway and flowing into a small pond prior to Outfall 001. The turbid stormwater was coming from a dirt roadway that runs along the northern and western side of Pond No. 2 and along the western side of the gabion channel. Essroc should implement additional stormwater BMPs to address this turbid stormwater flow since at the point of entry into Pond 2 it has very little time to settle out before discharging to Outfall 001. As shown in Tables 1 and 2 above, there have been TSS violations in June, April and January of 2015 as well as October and December 2014.

8. The Laboratory Report for October 13, 2014 (see Attachment 2) reported fecal coliform results of 5000; 5000; 2740 (geometric mean); 3500, 5000. Please explain if there was a fifth sample result that was not reported in the DMR, or exactly how the geometric mean was calculated for this sample.

9. As shown in the table of violations in Table 1 above, many total coliform results are reported as >16,000. Essroc should instruct its laboratory to conduct additional dilutions so it can better quantify the total coliform concentrations when they are greater than 16,000.

Figure 2 – Unsewered Communities in the Essroc Vicinity

[4] Source: Puerto Rico Planning Board GIS Application - http://gis.jp.pr.gov/mipr/



10. EPA could not locate the quarterly reports required under the Consent Decree for the period October 2013 through March 2014. Please provide these two (2) quarterly reports to EPA.

11. Based upon benchmark sampling at Stormwater Outfalls No. 1 and No. 2 included in Table 3 (next page), annual averages are lower than the 100 mg/L TSS benchmark, however note that there was a discharge of 404 mg/L of TSS in the June 2015 stormwater sample at Stormwater Outfall No. 1. Please explain what Essroc has done or will do at Stormwater Outfall No. 1 to control TSS concentrations at SW Outfall No. 1 to avoid a an annual average benchmark exceedance.

12. As shown in photograph 741, there was a light sheen in trap locating at Essroc fueling area. Mr. Colón said it would be cleaned up with sorbent pads prior to any discharge.

13. The used oil area near maintenance shop, has sludge in it, but is kept closed but it appears that cleaning of this sludge is needed.See photo 765 for more details.

Table 3 - Benchmark Sampling at Stormwater Outfalls No. 1 and No. 2

Date	SW Outfall No.1		SW Outfall No. 2	
	TSS (mg/L) Benchmark 100 mg/L	pH (SU) Benchmark 6.5 to 9	TSS (mg/L)	pH (SU)
Jun-15	404	7.2	80	7.5
May-15	33	7.36	sample not taken	
Apr-15	30	7.95	19	7.23
Mar-15	8	7.48	31	7.85
Feb-15	<5	6.85	<5	7.18
Jan-15	19	7.27	163	7.17
Dec-14	17	7.77	115	7.56
Nov-14	56	7.74	20	8.14
Oct-14	10	7.45		
Sep-14	10	6.78	17	7.12
Aug-14	6	7.85	97	7.36
Jul-14	No Sample Taken - Too Little Rainfall			
Jun-14	No Discharge			
May-14	5	7.85	10	7.74
Apr-14	No Data reported - although discharge occurred in April 2014			
Mar-14	Need Data			
Feb-14	Need Data			
Jan-14	Need Data			
Dec-13	Need Data			
Nov-13	Need Data			
Oct-13	Need Data			
Sep-13	<5	7.32	<5	7.25
Aug-13	17	7.51	14	7.49
Jul-13	12	7.56	5	7.52
Jun-13	13	7.28	10	7.25
May-13	17	8.03	10	7.49
Apr-13	No Discharge		No Discharge	
Mar-13	No Discharge		No Discharge	
Feb-13	No Discharge		No Discharge	
Jan-13	8	7.24	8	7.43

14. The Rock Berms tributary to Stormwater Outfall No. 1 (DP001) (which drains Quarry Area No. 6) were in need of cleaning. Mr. Colón said that they would ask their quarry contractor, Manillas to clean in July. Please provide to the EPA the status of such cleaning efforts.

15. Please provide to the EPA the electronic version of Essroc's most recent Stormwater Pollution Prevention Plan (SWPPP).

16. Essroc's laboratory, Sanco Laboratories, is using SM 4500 CN^- E for Free Cyanide analysis under the Permit. However this does not appear to be a 40 CFR Part 136 approved method for free cyanide See Table Below. Please have the laboratory

verify that it is using the correct analytical methods for Free Cyanide.

Table 4 – Free Cyanide methods from 40 CFR Part 136.3

24 A Cyanide-Free, mg/L	Flow Injection, followed by gas diffusion amperometry			D7237-10	OIA-1677-09.[44]
	Manual micro-diffusion and colorimetry			D4282-02	

C. OTHER ITEMS

1. Essroc's Individual Permit expired on November 2012 and has not been renewed. Essroc submitted a Permit Application dated April 20, 2012 and therefore the expired permit continues to be effective.

2. Please be aware that the final 2015 MSGP is now effective and submittal of a new NOI and a revised SWPPP is required as of September 2, 2015.

D. ATTACHMENTS

1. Photographs
2. Lab report from October 13, 2014

ATTACHMENT 1, PHOTOGRAPHS, May 29, 2015 Essroc San Juan Cement, PR0001163, Dorado PR Unedited Digital Photographs Taken by Murray Lantner, P.E., Env. Eng. USEPA Region 2 with a Nikon Coolpix P510 Digital Camera	
photo ID	**Description**
DSCN2711	Potential water line leak that runs into channel between Ponds 1 and 2.
DSCN2712	Potential water line leak that runs into channel between Ponds 1 and 2.
DSCN2713	Potential water line leak that runs into channel between Ponds 1 and 2.
DSCN2714	Potential water line leak that runs into channel between Ponds 1 and 2.
DSCN2715	Wastewater storage tank.
DSCN2716	Wastewater storage tank.
DSCN2717	Wastewater Level in wastewater in tank is high - but is thought to overflow to tank in 2716
DSCN2718	Channel with gabions that leads from Pond 1 to Pond 2
DSCN2719	Channel with gabions that leads from Pond 1 to Pond 2
DSCN2720	Outfall 001 PR0001163
DSCN2721	Ultrasonic head sensor at weir at Outfall 001 - the sensor is working, but a cap on the sensor is missing and Essroc will work to replace.
DSCN2722	Ultrasonic head sensor at weir at Outfall 001 - the sensor is working, but a cap on the sensor is missing and Essroc will work to replace.
DSCN2723	Downstream portion of Pond No. 2 that is across dirt access road from main pond, closest to Outfall 001.
DSCN2724	Main section of Pond No. 1, reflection of bldg. where flow readout and pumping equipment is located. Point of the pond where the channel that flows from the residential area enters Pond No. 2
DSCN2725	Main section of Pond No. 1, and bldg. where flow readout and pumping equipment is located. Point of the pond where the channel that flows from the residential area enters Pond No. 2
DSCN2726	Stormwater channel along the road near truck parking area.
DSCN2727	Stormwater channel/catch basin near truck parking area in need of cleaning/clogged
DSCN2728	Stormwater channel/catch basin near truck parking area in need of cleaning/clogged
DSCN2729	Stormwater channel/catch basin near truck parking area in need of cleaning/clogged
DSCN2730	Portion of sewer l that conveys flow from residential area to Pond No. 2
DSCN2731	Portion of sewer l that conveys flow from residential area to Pond No. 2
DSCN2732	Channel that conveys water from the residential community that conveys water to Essroc's Pond No. 2
DSCN2733	Channel that conveys water from the residential community that conveys water to Essroc's Pond No. 2. Water seen in the channel.

ATTACHMENT 1, PHOTOGRAPHS, May 29, 2015
Essroc San Juan Cement, PR0001163, Dorado PR
Unedited Digital Photographs Taken by Murray Lantner, P.E., Env. Eng. USEPA Region 2 with a Nikon Coolpix P510 Digital Camera

photo ID	Description
DSCN2734	Channel that conveys water from the residential community that conveys water to Essroc's Pond No. 2. Water seen in the channel.
DSCN2735	Straight pipe discharges from a residence into the channel that leads to Essroc's Pond No. 2
DSCN2736	Foamy wastewater discharged from straight pipe discharges from residence into the channel that leads to Essroc's Pond No. 2
DSCN2737	Straight pipe discharge from residential area into channel that flows to Essroc's Pond No. 2
DSCN2738	Essroc Groundwater well near plant entrance.
DSCN2739	Residential community that has flows to channel tributary to Essroc Pond No. 2
DSCN2740	Residential community that has flows to channel tributary to Essroc Pond No. 2
DSCN2741	Sheen in trap at fueling area (Said would be cleaned up with sorbent pads
DSCN2742	8,000 gallon diesel tank - Essroc fueling area
DSCN2743	Essroc fueling area
DSCN2744	Sediment partially blocking catch basin - in need of cleaning.
DSCN2745	Continuous flow chart for Outfall 001
DSCN2746	Influent to Pond No. 2 (Internal Sampling Point L2) where gabion channel enters Pond No. 2
DSCN2747	Anura metamorphs near Pond No. 1
DSCN2748	Pond No. 1
DSCN2749	Pond No. 1
DSCN2750	Wastewater tanks behind office area
DSCN2751	Water accumulation in area behind office
DSCN2752	Air conditioners behind office.
DSCN2753	Large amount of sediment accumulated in stormwater channel/basin near the packing house.
DSCN2754	Large amount of sediment accumulated in stormwater channel/basin near the packing house.
DSCN2755	Trench Drain that is full with sediment - needs to be cleaned
DSCN2756	Finishing Mill No. 3, said that the material storage piles were used as safety berms to avoid equipment falling over steep edge of access way.
DSCN2757	Material storage berms
DSCN2758	Clinker Storage Area
DSCN2759	Oil water separator in "Safety Kleen" Used oil area
DSCN2760	Oil water separator in "Safety Kleen" Used oil area
DSCN2761	Coal outside of coal storage building
DSCN2762	Coal in coal storage building.

ATTACHMENT 1, PHOTOGRAPHS, May 29, 2015 Essroc San Juan Cement, PR0001163, Dorado PR Unedited Digital Photographs Taken by Murray Lantner, P.E., Env. Eng. USEPA Region 2 with a Nikon Coolpix P510 Digital Camera	
photo ID	**Description**
DSCN2763	Flow paths from the coal storage building
DSCN2764	Flow paths from the coal storage building
DSCN2765	Sludge in Maintenance Area
DSCN2766	empty drum storage in the area of the maintenance shop
DSCN2767	Quarry Area
DSCN2768	Quarry Area
DSCN2769	Stormwater Outfall from Quarry during a rain event, there was not a turbid discharge.
DSCN2770	Drum storage area at the plant
DSCN2771	Outdoor material storage
DSCN2772	Indoor drum storage area
DSCN2773	Turbid water entering Pond No. 2, near the point where it crosses under roadway and flows towards a small pond tributary to Outfall 001. This turbid flow was associated with rain event from stormwater flowing north down access road on western side of Pond No. 2
DSCN2774	Turbid water entering Pond No. 2, near the point where it crosses under roadway and flows towards a small pond tributary to Outfall 001. This turbid flow was associated with rain event from stormwater flowing north down access road on western side of Pond No. 2
DSCN2775	Pond No. 2 during rain event facing south towards the gabion channel that is flowing into Pond No. 2
DSCN2776	Stormwater flow down dirt roadway that ultimately enters Pond No. 2 at its outlet (shown in photos 772 and 773)
DSCN2777	Stormwater flow down dirt roadway that ultimately enters Pond No. 2 at its outlet (shown in photos 772 and 773)
DSCN2778	Stormwater flow down dirt roadway that ultimately enters Pond No. 2 at its outlet (shown in photos 772 and 773)
DSCN2779	Stormwater flow in the Gabion Channel leading to Pond No. 2
DSCN2780	Stormwater flow in the Gabion Channel leading to Pond No. 2
DSCN2781	Flow from the gabion channel entering Pond No. 2 at sample point L2
DSCN2782	Flow meter circular chart for Outfall 001
DSCN2783	Instantaneous readout for flow meter at Outfall 001
DSCN2784	Small pond at the discharge point Outfall 001
DSCN2785	Flow from Outfall 001

Attachment 1 – Photos - Essroc San Juan Cement, PR0001163, Compliance Evaluation Inspection, May 29, 2015
Unedited Digital Photos Taken by M. Lantner, USEPA Region 2, DECA-WCB with Nikon Coolpix P510 Digital Camera

DSCN2711

DSCN2712

DSCN2713

DSCN2714

Essroc San Juan Cement Photos, May 29, 2015 - EfPA Inspection

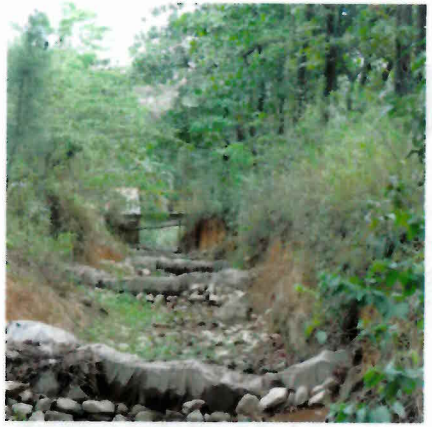
DSCN2715

DSCN2716

DSCN2717

DSCN2718

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection



DSCN2719

DSCN2720

DSCN2721

DSCN2722

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2723

DSCN2724

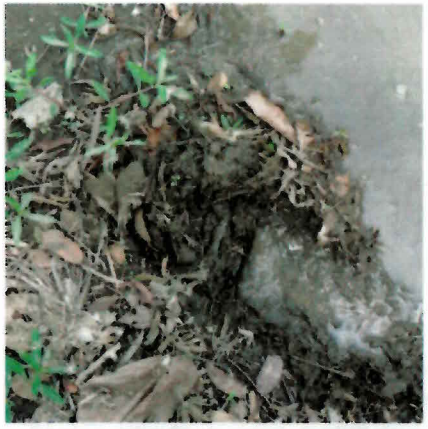
DSCN2725

DSCN2726

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2727

DSCN2728



DSCN2729

DSCN2730

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2731

DSCN2732

DSCN2733

DSCN2734

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2735

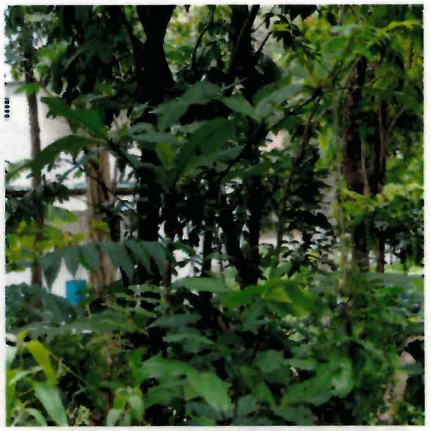
DSCN2736

DSCN2737

DSCN2738

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2739



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DSCN2741

DSCN2742

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2743

DSCN2744

DSCN2745

DSCN2746

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2747

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DSCN2749

DSCN2750

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

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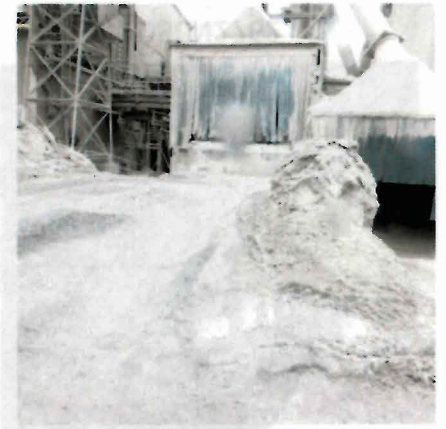
DSCN2753

DSCN2754

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2755



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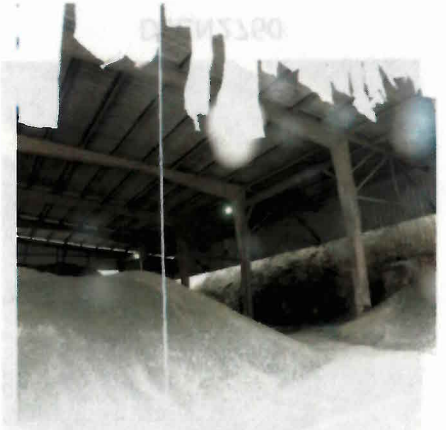

DSCN2758

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2759

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DSCN2761

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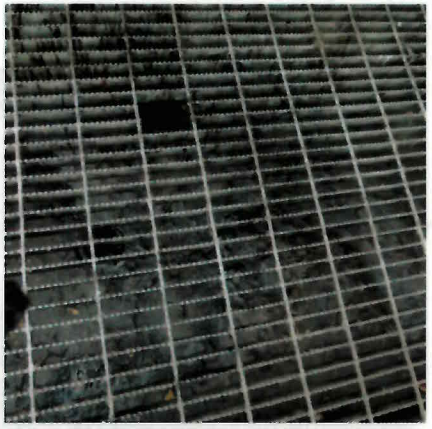
Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2763

DSCN2764



DSCN2765

DSCN2766

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2767

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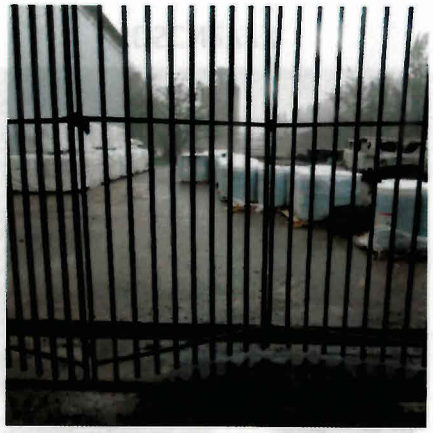
DSCN2770

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection



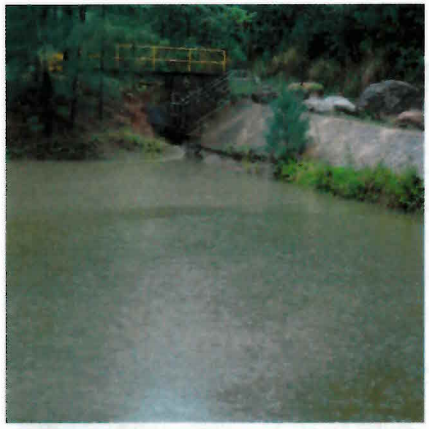
DSCN2771

DSCN2772

DSCN2773

DSCN2774

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection



DSCN2775

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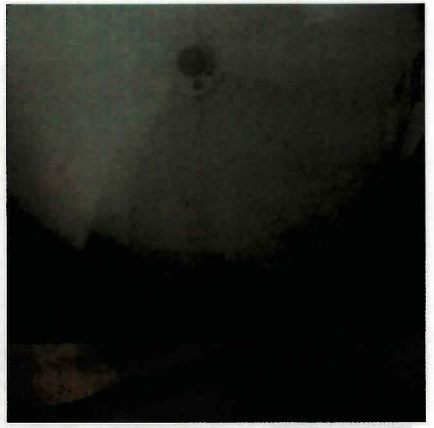
Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2779

DSCN2780

DSCN2781



DSCN2782

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

DSCN2783

DSCN2784

DSCN2785

Essroc San Juan Cement Photos, May 29, 2015, EPA Inspection

Attachment 2

Sanco Laboratories, Inc.

Quality and Reliability Since 1975

October 30, 2014

Ing. Juan Colón
Essroc San Juan, Inc.
P.O. Box 366698
San Juan, PR 00936-6698

LABORATORY REPORT

Sanco Project ID : 141014H002
Project Description : Outfall 001
Permit Number: PR0001163

Customer ID : 353

Sample(s) Submitted By : Essroc San Juan, Inc.
Sampled by : Sanco Laboratories, Inc.
Sample(s) Log Number : 141014H002

Date Received : 10/13/2014
Date Collected : 10/13/2014

Log Number	Parameter	Sample Type	Method	Units	Limit	Result	Date Analyzed	Analyst
141014H002	Ammonia	G	SM 4500-NH_3 H	mg/L	1.000	ND	10/22/2014	pa
	BOD_5	G	SM 5210 B	mg/L	5.0	<5	10/15/2014	eov
	Color PtCo	G	SM 2120 B	PtCo Units	15	30	10/14/2014	rvc
	Free Cyanide	G	SM 4500-CN^- E	µg/L	5.2	<2	10/24/2014	rvc
	Dissolved Oxygen (DO)	G	SM 4500-O G	mg/L	≥ 5.0	6.5	10/13/2014	joi
	Surfactants	G	SM 5540 C	µg/L	100	55	10/14/2014	rvc
	Oil and Grease	G	EPA 1664A	mg/L	---	<5.0	10/17/2014	rvc
	pH	G	SM 4500-H^+ B	Std. Units	6.0 - 9.0	8.92	10/13/2014	joi
	SS	G	SM 2540F(a)	mL/L	---	0.2	10/14/2014	rvc
	Sulfate	G	ASTM D516	mg/L	250	119.0	10/14/2014	rvc
	Un-ionized Sulfide	G	SM 4500-S^{2-} H	µg/L	0.1 - 2	<2.0	10/14/2014	rvc
	Temperature	G	SM 2550 B	°C	---	30.5	10/13/2014	joi
	TSS	G	SM 2540 D	mg/L	50.0	68.5	10/17/2014	rvc
	Hexavalent Chromium	G	SM 4500-Cr^- B	µg/L	52	<5	10/15/2014	rvc
	Copper	G	SM 3113 B	µg/L	12	10	10/23/2014	rvc
	Fecal Coliforms	G	SM 9221 E	MPN/100mL	---	5000	10/13/2014	apr
	Fecal Coliforms	G	SM 9221 E	MPN/100mL	---	5000	10/13/2014	apr
	Fecal Coliforms**	G	SM 9221 E	MPN/100mL	200	2740	10/13/2014	apr
	Fecal Coliforms	G	SM 9221 E	MPN/100mL	---	3500	10/13/2014	apr
	Fecal Coliforms	G	SM 9221 E	MPN/100mL	---	5000	10/13/2014	apr

Sanco Laboratories, Inc.
Sample(s) Log Number : 141014H002

Log Number	Parameter	Sample Type	Method	Units	Limit	Result	Date Analyzed	Analyst
141014H002	Total Coliforms	G	SM 9221 B	MPN/100mL	---	≥16000	10/13/2014	apr
	Total Coliforms	G	SM 9221 B	MPN/100mL	---	≥16000	10/13/2014	apr
	Total Coliforms**	G	SM 9221 B	MPN/100mL	1000	≥16000	10/13/2014	apr
	Total Coliforms	G	SM 9221 B	MPN/100mL	---	≥16000	10/13/2014	apr
	Total Coliforms	G	SM 9221 B	MPN/100mL	---	≥16000	10/13/2014	apr
	PHENOLS							
	2-Chlorophenol	G	EPA 625	µg/L	---	<10.0	10/20/2014	pa
	2,4-Dichlorophenol	G	EPA 625	µg/L	---	<10.0	10/20/2014	pa
	2,4-Dimethylphenol	G	EPA 625	µg/L	---	<10.0	10/20/2014	pa
	2,4-Dinitrophenol	G	EPA 625	µg/L	---	<10.0	10/20/2014	pa
	2-Methyl-4,6-dinitrophenol	G	EPA 625	µg/L	---	<10.0	10/20/2014	pa
	Pentachlorophenol	G	EPA 625	µg/L	---	<10.0	10/20/2014	pa
	Phenol	G	EPA 625	µg/L	---	<10.0	10/20/2014	pa
	2,4,6-Trichlorophenol							

ND - Not Detected
MPN = Most Probable Number
* Coliforms Geometric Mean

Revised by:

Lic. Enid Ortiz
Laboratory Supervisor

Released by:

Heriberto Batiz, Ph.D.
Technical Director

ESTADO LIBRE ASOCIADO DE PUERTO RICO
Lic. Heriberto Batiz Hernández
Lic.# 568
1507475
QUIMICO LICENCIADO